

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (currently amended) An oximeter sensor comprising:  
a light emitter for directing light at a patient;  
a light detector mounted to receive light from said patient; and  
a memory storing a first set of coefficients corresponding to a wavelength of said light emitter for use in a first formula for determining oxygen saturation, and a second set of coefficients corresponding to said wavelength of said light emitter for use in first and a second, different formulas formula for determining oxygen saturation.
2. (original) The oximeter sensor of claim 1 wherein said coefficients are dependent on a mean wavelength of said light emitter.
3. (original) The oximeter sensor of claim 1 wherein said memory further stores a value indicating a signal breakpoint between said first and second formulas.
4. (original) The oximeter sensor of claim 1 wherein at least one of said different formulas is a nonlinear formula.
5. (original) The oximeter sensor of claim 1 wherein said different formulas are linear formulas.
6. (currently amended) An oximeter sensor system comprising:  
a light emitter for directing light at a patient;  
a light detector mounted to receive light from said patient; and  
a memory, mounted in a sensor or between said sensor and an oximeter monitor,  
~~storing coefficients for use in first and second different formulas for determining oxygen saturation,~~

~~said memory further storing an indication of a breakpoint saturation for use in selecting between said first and second formulas ;~~

said oximeter monitor selecting between first and second coefficients or formulas for determining oxygen saturation based at least in part on said breakpoint.

7. (original) The oximeter sensor of claim 6 wherein said coefficients are dependent on a mean wavelength of said light emitter.

8. (canceled)

9. (currently amended) The oximeter sensor of claim 6 wherein at least one of said ~~different~~ formulas is a nonlinear formula.

10. (currently amended) The oximeter sensor of claim 6 wherein said ~~different~~ formulas are linear formulas.

11. (currently amended) An oximeter sensor comprising:  
a light emitter for directing light at a patient;  
a light detector mounted to receive light from said patient; and a memory storing a plurality of alternate values of oxygen saturation or ratio-of-ratio values used to determine oxygen saturation, said plurality of values corresponding to the same a mean wavelength of said same light emitter.

12. (currently amended) The sensor of claim 11 wherein said values are usable for interpolation correspond to different coefficients or formulas used for different ranges of oxygen saturation.